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**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP) Renewal  
OFFICE OF AIR QUALITY  
and  
IDEM NORTHWEST INDIANA OFFICE**

**Midwest Pipe Coating, Inc.  
925 Kennedy Avenue  
Schererville, IN 46375**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 089-14137-00096	
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: August 29, 2002  Expiration Date: August 29, 2007

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**Quarterly Report Forms**

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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and IDEM Northwest Indiana Office. The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary metal pipe and bar abrasive cleaning and coating operation.

Authorized individual:	Carl Laib, General Manager
Source Address:	925 Kennedy Avenue, Schererville, IN 46375
Mailing Address:	925 Kennedy Avenue, Schererville, IN 46375
SIC Code:	3479
Source Location Status:	Lake
County Status:	Nonattainment for SO <sub>2</sub> and Ozone Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, Emission Offset Rules

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) Thin Film Line I Abrasive Cleaning Machine equipped with storage hopper and airwash separators all identified as EU5 and rated at 40 pounds virgin grit per hour, with particulate matter controlled by a baghouse identified as CE13, constructed in 1966, and exhausting at one (1) stack identified as S/V9;
- (b) One (1) Thin Film Line II Abrasive Cleaning Machine equipped with storage hopper and airwash separators all identified as EU14 and rated at 200 pounds virgin grit per hour, with particulate matter controlled by a baghouse identified as CE1, constructed in 1978, and exhausting at one (1) stack identified as S/V1;
- (c) One (1) Rebar Line Abrasive Cleaning Machine equipped with storage hopper and airwash separators all identified as EU27 and rated at 80 pounds virgin grit per hour, with particulate matter controlled by cartridge dust collector identified as CE7, constructed in 2000, and exhausting at one (1) stack identified as S/V17;
- (d) One (1) I.D. Line Abrasive Cleaning Machine equipped with airwash separator and grit reclaim all identified as EU30 and rated at 1920 pounds virgin grit per hour; particulate matter at the airwash separator controlled by a baghouse identified as CE10 and exhausting at one (1) stack identified as S/V20; and particulate matter at the reclaim controlled by a baghouse identified as CE11, constructed in 1985, and exhausting at one (1) stack identified as S/V21;

- (e) One (1) Thin Film Line I: One (1) Powder Spray Booth equipped with powder reclaim and a sixteen (16) gun electrostatic air atomized spray application system all identified as EU7 and rated at 110 pounds virgin powder per hour, with particulate matter controlled by dry filters identified as CE2, constructed in 1965, exhausting at one (1) stack identified as S/V3;
- (f) One (1) Thin Film Line II: One (1) Powder Spray Booth equipped with powder reclaim and a thirty-two (32) gun electrostatic air atomized spray application system, identified as EU19 and rated at 750 pounds virgin powder per hour, with particulate matter controlled by dry filters identified as CE4, constructed in 1984, and exhausting at one (1) stack identified as S/V6;
- (g) One (1) Custom I Line Powder Spray Booth equipped with powder reclaim and an eighteen (18) gun electrostatic air atomized spray application system all identified as EU23, rated at 100 pounds virgin powder per hour; particulate matter at the spray booth controlled by dry filters identified as CE5, constructed in 1986, and exhausting at one (1) stack identified as S/V12; particulate matter at the powder reclaim controlled by a baghouse identified as CE6 and exhausting at one (1) stack identified as S/V13;
- (h) One (1) Rebar Line Powder Spray Booth equipped with powder reclaim system and an eighteen (18) gun electrostatic air atomized spray application system all identified as EU28 and rated at 250 pounds virgin powder per hour; particulate matter at the spray booth controlled by dry filters identified as CE8, constructed in 1981, and exhausting at one (1) stack identified as S/V18; and particulate matter at the powder reclaim controlled by a cartridge dust collector identified as CE9 and exhausting at one (1) stack identified as S/V19;
- (i) One (1) Custom Coating Powder Spray Booth equipped with powder reclaim and a twenty four (24) gun electrostatic air atomized spray application system all identified as EU21, constructed in 1997, and rated at 750 pounds virgin powder per hour; particulate matter at the spray booth controlled by dry filters identified as CE14 and exhausting at one (1) stack identified as S/V7;
- (j) One (1) Thin Film Line II: Three (3) natural gas direct fired process ovens, each rated at 12.8 million (MM) British thermal units (Btu) per hour each, identified as EU16, EU17 and EU18, each constructed in 1984, 1984, and 1988, respectively, and exhausting at one (1) stack identified as S/V5.
- (k) Three Liquid Coating Facilities:
  - (1) One (1) I.D. Line Paint Machine rated at 400 pounds liquid paint per hour utilizing a one (1) gun airless spray application system all identified as EU31, with particulate matter over spray controlled by dry filters identified as CE12, constructed in 1985, and exhausting at one (1) stack identified as S/V22;
  - (2) One (1) O.D. Paint Station rated at 400 pounds liquid paint per hour utilizing a flow coating or a one (1) gun airless spray application system, constructed in 1997, all identified as EU39, and exhausting at one (1) stack identified as S/V30;
  - (3) One (1) Rebar Line Patch Station rated at 8 pounds patching compound per hour utilizing a brush application method, and identified as EU40, exhausting at one (1) stack identified as S/V29.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.
- (c) Combustion source flame safety purging on startup.
- (d) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (e) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (f) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (g) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (h) Refractory storage not requiring air pollution control equipment.
- (i) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (j) Machining where and aqueous cutting coolant continuously floods the machining interface.
- (k) Cleaners and solvents characterized as follows:
  - A) having a vapor pressure equal to or less than 2 kPa; 15 mmHg; or 0.3 psi measured at 38 degrees C (100 degrees F) or;
  - B) having a vapor pressure equal to or less than 0.7 kPa; 5 mmHg; or 0.1 psi measured at 20 degrees C (68 degrees F);The use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
  - (1) One (1) 30 gallon cold cleaning parts washer identified as EU41, with a vapor pressure of 2.0 mmHg @ 68 degrees F.
- (l) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (m) Closed loop heating and cooling systems.
- (n) Any of the following structural steel and bridge fabrication activities:

- (1) Cutting 20,000 linear feet or less of one inch (1") plate or equivalent.
- (2) Using 80 tons or less of welding consumables.
- (o) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (p) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (q) Heat exchanger cleaning and repair.
- (r) Paved and unpaved roads and parking lots with public access.
- (s) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks and fluid handling equipment.
- (t) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (u) Emergency gasoline generators not exceeding 110 horsepower.
- (v) Emergency diesel generators not exceeding 1600 horsepower.
- (w) grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting ; pneumatic conveying; and woodworking operations.
- (x) Filter or coalescer media change out.
- (y) Thin Film Line I Ink Printer used to mark bar and pipe with identification information.
- (z) Thin Film Line II Ink Printer used to mark pipe with identification information.
- (aa) Pyrolysis cleaning furnace, identified as EU25, used to remove coating from steel parts by heating and vaporizing.
- (bb) Thin Film Line II Rinse Station spraying a water/phosphoric acid mixture onto steel pipe.
- (cc) Thin Film Line I Blowout Station used to remove residual steel abrasive from the inside of steel pipe.
- (dd) Thin Film Line II Blowout Station used to remove residual steel abrasive from the inside of steel pipe.
- (ee) One (1) Thin Film Line II Abrasive Grit Blow Out Station identified as EU15, with particulate matter controlled by a baghouse identified as CE3, and exhausting at one (1) stack identified as S/V4;

- (ff) One (1) Rear Line Patch Station rated at 8 pounds patching compound per hour utilizing a brush application method and identified as EU40, exhausting at one (1) stack identified as S/V29; and
- (gg) I.D. paint station applying a rust preventive coating onto pipe ends.
- (hh) Quality control lab located in the main office.
- (ii) Rebar fume hood exhausting fume at the exist side of the Rebar spray booth to the atmosphere.
- (jj) Thin Film Line fume hood exhausting fume at the exist side of the Thin Film Line spray booth to the atmosphere.
- (kk) Dowel bar dip tank coating steel bars with a corrosion preventive compound.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

## SECTION B GENERAL CONDITIONS

### B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

### B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

### B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

### B.4 Enforceability [326 IAC 2-8-6]

- (a) Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM and IDEM Northwest Indiana Office, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.
- (b) Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM Northwest Indiana Office.

### B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

### B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

### B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

IDEM Northwest Indiana Office  
Gainer Bank Building  
Suite 418  
504 North Broadway  
Gary, Indiana 46402

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, and IDEM Northwest Indiana Office within a reasonable time, any information that IDEM, OAQ, and IDEM Northwest Indiana Office may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, and IDEM Northwest Indiana Office copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]
- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ and IDEM Northwest Indiana Office may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; and
  - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

**B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

IDEM Northwest Indiana Office  
Gainer Bank Building  
Suite 418  
504 North Broadway  
Gary, Indiana 46402

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and IDEM Northwest Indiana Office on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, and IDEM Northwest Indiana Office may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, and IDEM Northwest Indiana Office upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and IDEM Northwest Indiana Office. IDEM, OAQ, and IDEM Northwest Indiana Office may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or IDEM Northwest Indiana Office makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or IDEM Northwest Indiana Office within a reasonable time.

**B.14 Emergency Provisions [326 IAC 2-8-12]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ or IDEM Northwest Indiana Office, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,  
Telephone No.: 317-233-5674 (ask for Compliance Section)  
Facsimile No.: 317-233-5967  
Telephone No.: 219-881-6712 (IDEM Northwest Indiana Office)  
Facsimile No.: 219-881-6745

Failure to notify IDEM, OAQ and IDEM Northwest Indiana Office, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

IDEM Northwest Indiana Office  
Gainer Bank Building  
Suite 418  
504 North Broadway  
Gary, Indiana 46402

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

- (e) IDEM, OAQ and IDEM Northwest Indiana Office, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ and IDEM Northwest Indiana Office, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]**

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- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

IDEM Northwest Indiana Office  
Gainer Bank Building  
Suite 418  
504 North Broadway  
Gary, Indiana 46402

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination**  
[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ or IDEM Northwest Indiana Office determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ or IDEM Northwest Indiana Office, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ or IDEM Northwest Indiana Office, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ or IDEM Northwest Indiana Office, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal** [326 IAC 2-8-3(h)]

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and IDEM Northwest Indiana Office and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

and

IDEM Northwest Indiana Office  
Gainer Bank Building  
Suite 418  
504 North Broadway  
Gary, Indiana 46402

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and IDEM Northwest Indiana Office on or before the date it is due.

(2) If IDEM, OAQ and IDEM Northwest Indiana Office upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ and IDEM Northwest Indiana Office takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ and IDEM Northwest Indiana Office, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

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(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

IDEM Northwest Indiana Office  
Gainer Bank Building  
Suite 418  
504 North Broadway  
Gary, Indiana 46402

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.19 Operational Flexibility [326 IAC 2-8-15]**

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- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
  - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
  - (4) The Permittee notifies the:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
and  
  
IDEM Northwest Indiana Office  
Gainer Bank Building  
Suite 418  
504 North Broadway  
Gary, Indiana 46402  
  
and  
  
United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590  
  
in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and
  - (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.  
  
Such records shall consist of all information required to be submitted to IDEM, OAQ and IDEM Northwest Indiana Office, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).
- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) **Emission Trades** [326 IAC 2-8-15(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) **Alternative Operating Scenarios** [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

**B.20 Permit Revision Requirement** [326 IAC 2-8-11.1]

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A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

**B.21 Inspection and Entry** [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, and IDEM Northwest Indiana Office U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.22 Transfer of Ownership or Operational Control** [326 IAC 2-8-10]

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- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

IDEM Northwest Indiana Office  
Gainer Bank Building  
Suite 418  
504 North Broadway  
Gary, Indiana 46402

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

**B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source
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### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit volatile organic compounds (VOCs) from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-3 (Emission Offset);
- (2) The potential to emit any regulated pollutant from the entire source, except particulate matter (PM) and volatile organic compounds (VOCs), shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period;
- (3) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (4) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-3 (Emission Offset), potential to emit particulate matter (PM) from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

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The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

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The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

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The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.6 Fugitive Dust Emissions [326 IAC 6-1-11.1]

---

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
- (d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (h) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (i) The  $PM_{10}$  emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (k) Any facility or operation not specified in 326 IAC 6-1-11.1(d) shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan.

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

---

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

---

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

---

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

IDEM Northwest Indiana Office  
Gainer Bank Building  
Suite 418  
504 North Broadway  
Gary, Indiana 46402

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

#### **Testing Requirements [326 IAC 2-8-4(3)]**

##### **C.10 Performance Testing [326 IAC 3-6]**

---

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

IDEM Northwest Indiana Office  
Gainer Bank Building  
Suite 418  
504 North Broadway  
Gary, Indiana 46402

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and IDEM Northwest Indiana Office not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, and IDEM Northwest Indiana Office, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

## **Compliance Requirements [326 IAC 2-1.1-11]**

### **C.11 Compliance Requirements [326 IAC 2-1.1-11]**

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

## **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

### **C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

### **C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

### **C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]**

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (b) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

## **Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

### **C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]**

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports  
[326 IAC 2-8-4] [326 IAC 2-8-5]

---

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ and IDEM Northwest Indiana Office upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:
- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
  - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
  - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
- (1) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
  - (2) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]  
[326 IAC 2-8-5]**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**C.18 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]**

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- (a) The Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8). The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

IDEM Northwest Indiana Office  
Gainer Bank Building  
Suite 418  
504 North Broadway  
Gary, Indiana 46402

The emission statement does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and IDEM Northwest Indiana Office on or before the date it is due.

C.19 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or IDEM Northwest Indiana Office makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or IDEM Northwest Indiana Office within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.20 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

IDEM Northwest Indiana Office  
Gainer Bank Building  
Suite 418  
504 North Broadway  
Gary, Indiana 46402

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and IDEM Northwest Indiana Office on or before the date it is due.

- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years.

### **Stratospheric Ozone Protection**

#### **C.21 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (a) One (1) Thin Film Line I Abrasive Cleaning Machine equipped with storage hopper and airwash separators all identified as EU5 and rated at 40 pounds virgin grit per hour, with particulate matter controlled by a baghouse identified as CE13, constructed in 1966, and exhausting at one (1) stack identified as S/V9;
- (b) One (1) Thin Film Line II Abrasive Cleaning Machine equipped with storage hopper and airwash separators all identified as EU14 and rated at 200 pounds virgin grit per hour, with particulate matter controlled by a baghouse identified as CE1, constructed in 1978, and exhausting at one (1) stack identified as S/V1;
- (c) One (1) Rear Line Abrasive Cleaning Machine equipped with storage hopper and airwash separators all identified as EU27 and rated at 80 pounds virgin grit per hour, with particulate matter controlled by cartridge dust collector identified as CE7, constructed in 2000, and exhausting at one (1) stack identified as S/V17;
- (d) One (1) I.D. Line Abrasive Cleaning Machine equipped with airwash separator and grit reclaim all identified as EU30 and rated at 1920 pounds virgin grit per hour; particulate matter at the airwash separator controlled by a baghouse identified as CE10 and exhausting at one (1) stack identified as S/V20; and particulate matter at the reclaim controlled by a baghouse identified as CE11, constructed in 1985, and exhausting at one (1) stack identified as S/V21;
- (e) One (1) Custom I Line Powder Reclaim (EU 23) controlled by a baghouse identified as CE6 and exhausting at one (1) stack identified as S/V13;
- (i) One (1) Rebar Line Powder Reclaim (EU 28) controlled by a cartridge dust collector identified as CE9 and exhausting at one (1) stack identified as S/V19.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 Particulate Matter (PM) [326 IAC 6-1-2] [326 IAC 2-3]

Pursuant to 326 IAC 6-1-2 (Particulate Emission Limitations), the particulate matter emissions from the processes controlled by baghouses CE-1, CE-6, CE-7, CE-9 - CE-11 and CE-13 shall each be limited to 0.03 gr/ dscf. This is equivalent to particulate allowable emission rates of the following:

Process/Facility	Exhaust Flow Rate (dscfm)	Allowable PM Emission Rate (lb/hr)
EU5 & EU14	6,623	1.70 each
EU27	6,817	1.75
EU30	5,649	1.45
EU30 (reclaim)	4,188	1.08
EU23 (reclaim)	4,188	1.08
EU28 (reclaim)	7,791	2.00

Compliance with these limits shall make the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

**D.1.2 Particulate Matter Less Than Ten Microns (PM-10) [326 IAC 2-8-4] [326 IAC 2-3]**

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Pursuant to 326 IAC 2-8 (FESOP):

- (a) the PM-10 emissions from baghouse CE-15 and CE-1 controlling EU5 and EU14, respectively, shall each not exceed 2.35 pounds per hour, which is equivalent to 10.31 tons per year.
- (b) the PM-10 emissions from dust collector CE-7 controlling EU27, shall not exceed 0.73 pounds per hour, which is equivalent to 3.22 tons per year.
- (c) the PM-10 emissions from baghouse CE-10 controlling EU30, shall not exceed 3.25 pounds per hour, which is equivalent to 18.6 tons per year.
- (d) the PM-10 emissions from baghouse CE-11 controlling EU30 (reclaim), shall not exceed 3.25 pounds per hour, which is equivalent to 18.6 tons per year.
- (e) the PM-10 emissions from baghouse CE-6 controlling EU23 (reclaim), shall not exceed 0.15 pounds per hour, which is equivalent to 0.64 tons per year.
- (f) the PM-10 emissions from baghouse CE-8 controlling EU28, shall not exceed 0.29 pounds per hour, which is equivalent to 1.28 tons per year.
- (g) the PM-10 emissions from dust collector CE-9 controlling EU28 (reclaim), shall not exceed 0.29 pounds per hour, which is equivalent to 1.28 tons per year.
- (h) the PM-10 emissions from baghouse CE-3 controlling EU15, shall not exceed 0.15 pounds per hour, which is equivalent to 0.64 tons per year.

Compliance with these requirements shall limit the source wide potential to emit PM-10 to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-3 do not apply.

**D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

**Compliance Determination Requirements**

**D.1.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]**

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During the period between July 2005 - December 2005, in order to demonstrate compliance with Conditions D.1.1 and D.1.2 the Permittee shall perform PM and PM-10 testing on the I.D. Line Abrasive Cleaning Machine equipped with airwash separator and grit reclaim, all identified as EU30, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**D.1.5 Particulate Matter (PM and PM-10)**

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In order to comply with D.1.1 and D.1.2, the baghouses and dust collectors for PM and PM-10 control shall be in operation at all times when the EU5, EU14, EU23, EU27, EU28 and EU 30 are in operation.

#### D.1.6 Visible Emissions Notations

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- (a) Once per shift visible emission notations of the EU5, EU14, EU 23, EU27, EU 28 and EU30 stack exhausts shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

#### D.1.7 Parametric Monitoring

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The Permittee shall record the differential pressure across the baghouse used in conjunction with EU5, EU14, EU23 and EU30, and the dust collector used in conjunction with EU27 and EU28 at least once per shift when the units are in operation when venting to the atmosphere. When for any one reading, the pressure drop across baghouses and dust collectors is outside the normal ranges of 1.0 to 6.0 inches of water, or ranges established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and IDEM Northwest Indiana Office and shall be calibrated at least once every six (6) months.

#### D.1.8 Baghouse Inspections

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An inspection shall be performed each calendar quarter of all bags controlling the abrasive cleaning operations and the powder spray booth operations. All defective bags shall be replaced.

#### D.1.9 Broken or Failed Bag Detection

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In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

#### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

##### D.1.10 Record Keeping Requirements

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- (a) To document compliance with Condition D.1.6, the Permittee shall maintain once per shift records of visible emission notations of the EU5, EU14, EU 23, EU27, EU28 and EU30 stack exhausts.
- (b) To document compliance with Condition D.1.7, the Permittee shall maintain once per shift records of the differential pressure during normal operation when venting to the atmosphere.
- (c) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8 and the dates the vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this Permit.

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (a) One (1) Thin Film Line I Powder Spray Booth equipped with powder reclaim and a sixteen (16) gun electrostatic air atomized spray application system all identified as EU7 and rated at 110 pounds virgin powder per hour, with particulate matter controlled by dry filters identified as CE2, constructed in 1965, exhausting at one (1) stack identified as S/V3;
- (b) One (1) Thin Film Line II: One (1) Powder Spray Booth equipped with powder reclaim and a thirty-two (32) gun electrostatic air atomized spray application system, identified as EU19 and rated at 750 pounds virgin powder per hour, with particulate matter controlled by dry filters identified as CE4, constructed in 1984, and exhausting at one (1) stack identified as S/V6;
- (c) One (1) Custom I Line Powder Spray Booth equipped with powder reclaim and an eighteen (18) gun electrostatic air atomized spray application system all identified as EU23, rated at 100 pounds virgin powder per hour; particulate matter at the spray booth controlled by dry filters identified as CE5, constructed in 1986, and exhausting at one (1) stack identified as S/V12;
- (d) One (1) Rebar Line Powder Spray Booth equipped with powder reclaim system and an eighteen (18) gun electrostatic air atomized spray application system all identified as EU28 and rated at 250 pounds virgin powder per hour; particulate matter at the spray booth controlled by dry filters identified as CE8, constructed in 1981, and exhausting at one (1) stack identified as S/V18;
- (e) One (1) Dual Coating Powder Spray Booth equipped with powder reclaim and a twenty four (24) gun electrostatic air atomized spray application system all identified as EU21, constructed in 1997, and rated at 750 pounds of virgin powder per hour; particulate matter at the spray booth controlled by dry filters identified as CE14 and exhausting at one (1) stack identified as S/V7;
- (f) One (1) Thin Film Line II: Three (3) natural gas direct fired process ovens, each rated at 12.8 million (MM) British thermal units (Btu) per hour each, identified as EU16, EU17 and EU18, each constructed in 1984, 1984, and 1988, respectively, and exhausting at one (1) stack identified as S/V5.
- (g) Three Liquid Coating Facilities:
  - (1) One (1) I.D. Line Paint Machine rated at 400 pounds liquid paint per hour utilizing a one (1) gun airless spray application system all identified as EU31, with particulate matter over spray controlled by dry filters identified as CE12, constructed in 1985, and exhausting at one (1) stack identified as S/V22;
  - (2) One (1) O.D. Paint Station rated at 400 pounds liquid paint per hour utilizing a flow coating or a one (1) gun airless spray application system, constructed in 1997, all identified as EU39, and exhausting at one (1) stack identified as S/V30; and
  - (3) One (1) Rebar Line Patch Station rated at 8 pounds patching compound per hour utilizing a brush application method, and identified as EU40, exhausting at one (1) stack identified as S/V29.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

## Emission Limitations and Standards [326 IAC 2-8-4(1)]

### D.2.1 Volatile Organic Compound Limitation [326 IAC 2-8-4] [326 IAC 2-3]

The three (3) paint booths (EU31, EU39 and EU40) shall use less than 23.49 tons of VOC, including coatings, dilution solvents, and cleaning solvents per 12 consecutive month period. This usage limit is required to limit the source's potential to emit of VOC to less than 25 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-7 and 326 IAC 2-3 not applicable.

### D.2.2 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volume weighted average volatile organic compound (VOC) content of coating applied to metal pipe in EU31 and EU30 shall be limited to 3.5 pounds of VOCs per gallon of coating less water, as delivered to the applicator for any calendar day, for forced warm air (less than 90EC or 194 EF) dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

### D.2.3 HAP Limit [326 IAC 2-8-4]

The three booths (EU31, EU39 and EU40) shall use less than 9 tons and 23.97 tons of any single HAP and any combination of HAPs, respectively, including coatings, dilution solvents, and cleaning solvents, per 12 consecutive month period. These usage limits are required to limit the source's potential to emit of any single HAP and any combination of HAPs to less than 10 and 25 tons, respectively, per 12 consecutive month period. Compliance with these limits make 326 IAC 2-7 not applicable.

### D.2.4 Particulate Matter (PM) [326 IAC 6-1-2] [326 IAC 2-3]

Pursuant to 326 IAC 6-1-2 (Particulate Emission Limitations), the particulate matter emissions from the processes controlled by baghouses CE-2 to CE-5, CE-8, CE-12 and CE-14 shall each be limited to 0.03 gr/ dscf. This is equivalent to particulate allowable emission rates of the following:

Process/Facility	Exhaust Flow Rate (dscfm)	Allowable PM Emission Rate (lb/hr)
EU7	2,532	0.65
EU19	5,843	1.50
EU21	8,905	2.29
EU23	5,843	1.50
EU28	1,677	0.43
EU15	4,188	1.08
EU25	59	0.013

Compliance with these limits shall make the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

### D.2.5 Particulate Matter Less Than Ten Microns (PM-10) [326 IAC 2-8-4] [326 IAC 2-3]

Pursuant to 326 IAC 2-8 (FESOP):

- (a) the PM-10 emissions from dry filters CE-2 controlling EU7, shall not exceed 0.15 pounds per hour, which is equivalent to 0.64 tons per year.

- (b) the PM-10 emissions from dry filters CE-4 controlling EU19, shall not exceed 1.32 pounds per hour, which is equivalent to 5.8 tons per year.
- (c) the PM-10 emissions from dry filters CE-14 controlling EU21, shall not exceed 0.44 pounds per hour, which is equivalent to 1.93 tons per year.
- (d) the PM-10 emissions from dry filters CE-5 controlling EU23, shall not exceed 0.15 pounds per hour, which is equivalent to 0.64 tons per year.

Compliance with these requirements shall limit the source wide potential to emit PM-10 to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-3 do not apply.

**D.2.6 Particulate Matter Overspray [326 IAC 6-1-11.1]**

Pursuant to 326 IAC 6-1-11.1 (Fugitive Particulate Matter Emission Limits in Lake County), the particulate matter overspray from EU39 shall be limited to a zero percent frequency of visible emission observations from a building enclosing all or part of the coating operation, and 10 percent opacity when operating otherwise.

**D.2.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

**Compliance Determination Requirements**

**D.2.8 Particulate Matter (PM and PM-10)**

In order to comply with D.2.4, D.2.5 and D.2.6, the dry filters for PM and PM-10 control shall be in operation at all times when the spray booths are in operation.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**D.2.9 Monitoring**

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks S/V 22 and S/V 30 while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

## **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

### **D.2.10 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.2.1, D.2.2 and D.2.3, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAP usage limits and/or the VOC and HAP emission limits established in Condition D.2.1 and D.2.3.
  - (1) The amount and VOC and HAP content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) A log of the dates of use;
  - (3) The volume weighted VOC and HAP content of the coatings used for each month;
  - (4) The cleanup solvent usage for each month;
  - (5) The total VOC and HAP usage for each month; and
  - (6) The weight of VOCs and HAP emitted for each compliance period.
- (b) To document compliance with Condition D.2.9, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.2.11 Reporting Requirements**

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A quarterly summary of the information to document compliance with Conditions D.2.1 and D.2.3 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.3

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

One (1) 30 gallon cold cleaning parts washer identified as EU41 in the building 1 maintenance shop, exhausting to stack S/V27.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

#### D.3.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5(a)]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility construction of which commenced after July 1, 1990, shall ensure that the following control equipment requirements are met:
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
  - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
  - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
  - (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
and  
IDEM NORTHWEST INDIANA OFFICE  
  
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Midwest Pipe Coating, Inc.  
Source Address: 925 Kennedy Avenue, Schererville, IN 46375  
Mailing Address: 925 Kennedy Avenue, Schererville, IN 46375  
FESOP No.: F089-14137-00096

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Affidavit (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
P.O. Box 6015  
100 North Senate Avenue  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**and**

**IDEM NORTHWEST INDIANA OFFICE**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Midwest Pipe Coating, Inc.  
Source Address: 925 Kennedy Avenue, Schererville, IN 46375  
Mailing Address: 925 Kennedy Avenue, Schererville, IN 46375  
FESOP No.: F089-14137-00096

**This form consists of 2 pages**

**Page 1 of 2**

**9** This is an emergency as defined in 326 IAC 2-7-1(12)  
CThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and  
CThe Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION  
and  
IDEM NORTHWEST INDIANA OFFICE**

**FESOP Quarterly Report**

Source Name: Midwest Pipe Coating, Inc.  
Source Address: 925 Kennedy Avenue, Schererville, IN 46375  
Mailing Address: 925 Kennedy Avenue, Schererville, IN 46375  
FESOP No.: F089-14137-00096  
Facility: three (3) paint booths EU31, EU39 and EU40  
Parameter: VOC  
Limit: VOC usage of less than 23.49 tons of VOC, including coatings, dilution solvents, and cleaning solvents per 12 consecutive month period.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	VOC Emission This Month (tons)	VOC Emission Previous 11 Months (tons)	VOC Emission 12 Month Total (tons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION  
and  
IDEM NORTHWEST INDIANA OFFICE**

**FESOP Quarterly Report**

Source Name: Midwest Pipe Coating, Inc.  
Source Address: 925 Kennedy Avenue, Schererville, IN 46375  
Mailing Address: 925 Kennedy Avenue, Schererville, IN 46375  
FESOP No.: F089-14137-00096  
Facility: three (3) paint booths EU31, EU39 and EU40  
Parameter: VOC  
Limit: HAP usage of 9 tons and 23.97 tons of any single HAP and any combination of HAPs, respectively, including coatings, dilution solvents, and cleaning solvents, per 12 consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1		Column 2		Column 1 + Column 2	
	Single HAP Emission This Month (tons)	Total HAP Emission This Month (tons)	Single HAP Emission Previous 11 Months (tons)	Single HAP Emission Previous 11 Months (tons)	Single HAP Emission 12 Month Total (tons)	Total HAP Emission 12 Month Total (tons)
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION  
and  
IDEM NORTHWEST INDIANA OFFICE**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Midwest Pipe Coating, Inc.  
Source Address: 925 Kennedy Avenue, Schererville, IN 46375  
Mailing Address: 925 Kennedy Avenue, Schererville, IN 46375  
FESOP No.: F089-14137-00096

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**Indiana Department of Environmental Management  
Office of Air Quality  
and  
IDEM Northwest Indiana Office**

**Technical Support Document (TSD) for a Federally Enforceable State  
Operating Permit (FESOP) Renewal**

**Source Background and Description**

Source Name:	Midwest Pipe Coating, Inc.
Source Location:	925 Kennedy Avenue, Schererville, IN 46375
County:	Lake
SIC Code:	3479
Operation Permit No.:	F089-14137-00096
Permit Reviewer:	Alic Bent/EVP

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Midwest Pipe Coating, Inc. relating to the operation of a metal pipe and bar abrasive cleaning and coating operation. Midwest Pipe Coating, Inc was issued FESOP 089-5526-00096, on December 10, 1996.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) Thin Film Line I Abrasive Cleaning Machine equipped with storage hopper and airwash separators all identified as EU5 and rated at 40 pounds virgin grit per hour, with particulate matter controlled by a baghouse identified as CE15, constructed in 1966, and exhausting at one (1) stack identified as S/V9;
- (b) One (1) Thin Film Line II Abrasive Cleaning Machine equipped with storage hopper and airwash separators all identified as EU14 and rated at 200 pounds virgin grit per hour, with particulate matter controlled by a baghouse identified as CE1, constructed in 1978, and exhausting at one (1) stack identified as S/V1;
- (c) One (1) Rebar Line Abrasive Cleaning Machine equipped with storage hopper and airwash separators all identified as EU27 and rated at 80 pounds virgin grit per hour, with particulate matter controlled by cartridge dust collector identified as CE7, constructed in 2000, and exhausting at one (1) stack identified as S/V17;

- (d) One (1) I.D. Line Abrasive Cleaning Machine equipped with airwash separator and grit reclaim all identified as EU30 and rated at 1920 pounds virgin grit per hour; particulate matter at the airwash separator controlled by a baghouse identified as CE10 and exhausting at one (1) stack identified as S/V20; and particulate matter at the reclaim controlled by a baghouse identified as CE11, constructed in 1985, and exhausting at one (1) stack identified as S/V21;
- (e) One (1) Thin Film Line I: One (1) Powder Spray Booth equipped with powder reclaim and a sixteen (16) gun electrostatic air atomized spray application system all identified as EU7 and rated at 110 pounds virgin powder per hour, with particulate matter controlled by dry filters identified as CE2, constructed in 1965, exhausting at one (1) stack identified as S/V3;
- (f) One (1) Thin Film Line II: One (1) Powder Spray Booth equipped with powder reclaim and a thirty-two (32) gun electrostatic air atomized spray application system, identified as EU19 and rated at 750 pounds virgin powder per hour, with particulate matter controlled by dry filters identified as CE4, constructed in 1984, and exhausting at one (1) stack identified as S/V6;
- (g) One (1) Custom I Line Powder Spray Booth equipped with powder reclaim and an eighteen (18) gun electrostatic air atomized spray application system all identified as EU23, rated at 100 pounds virgin powder per hour; particulate matter at the spray booth controlled by dry filters identified as CE5, constructed in 1986, and exhausting at one (1) stack identified as S/V12; particulate matter at the powder reclaim controlled by a baghouse identified as CE6 and exhausting at one (1) stack identified as S/V13;
- (h) One (1) Rebar Line Powder Spray Booth equipped with powder reclaim system and an eighteen (18) gun electrostatic air atomized spray application system all identified as EU28 and rated at 250 pounds virgin powder per hour; particulate matter at the spray booth controlled by dry filters identified as CE8, constructed in 1981, and exhausting at one (1) stack identified as S/V18; and particulate matter at the powder reclaim controlled by a cartridge dust collector identified as CE9 and exhausting at one (1) stack identified as S/V19;
- (i) One (1) Dual Coating Powder Spray Booth equipped with powder reclaim and a twenty four (24) gun electrostatic air atomized spray application system all identified as EU21, constructed in 1997, and rated at 750 pounds virgin powder per hour; particulate matter at the spray booth controlled by dry filters identified as CE14 and exhausting at one (1) stack identified as S/V7;
- (j) One (1) Thin Film Line II: Three (3) natural gas direct fired process ovens, each rated at 12.8 million (MM) British thermal units (Btu) per hour each, identified as EU16, EU17 and EU18, each constructed in 1984, 1984, and 1988, respectively, and exhausting at one (1) stack identified as S/V5.
- (k) Three Liquid Coating Facilities:
  - (1) One (1) I.D. Line Paint Machine rated at 400 pounds liquid paint per hour utilizing a one (1) gun airless spray application system all identified as EU31, with particulate matter over spray controlled by dry filters identified as CE12, constructed in 1985, and exhausting at one (1) stack identified as S/V22;
  - (2) One (1) O.D. Paint Station rated at 400 pounds liquid paint per hour utilizing a flow coating or a one (1) gun airless spray application system, constructed in 1997, all identified as EU39, and exhausting at one (1) stack identified as S/V30;

- (3) One (1) Rebar Line Patch Station rated at 8 pounds patching compound per hour utilizing a brush application method, and identified as EU40, exhausting at one (1) stack identified as S/V29.

### Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

### Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.
- (c) Combustion source flame safety purging on startup.
- (d) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (e) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (f) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (g) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (h) Refractory storage not requiring air pollution control equipment.
- (i) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (j) Machining where and aqueous cutting coolant continuously floods the machining interface.
- (k) Cleaners and solvents characterized as follows:
  - A) having a vapor pressure equal to or less than 2 kPa; 15 mmHg; or 0.3 psi measured at 38 degrees C (100 degrees F) or;
  - B) having a vapor pressure equal to or less than 0.7 kPa; 5 mmHg; or 0.1 psi measured at 20 degrees C (68 degrees F);

The use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

- (1) One (1) 30 gallon cold cleaning parts washer identified as EU41, with a vapor pressure of 2.0 mmHg @ 68 degrees F.
- (l) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

- (m) Closed loop heating and cooling systems.
- (n) Any of the following structural steel and bridge fabrication activities:
  - (1) Cutting 20,000 linear feet or less of one inch (1") plate or equivalent.
  - (2) Using 80 tons or less of welding consumables.
- (o) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (p) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (q) Heat exchanger cleaning and repair.
- (r) Paved and unpaved roads and parking lots with public access.
- (s) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks and fluid handling equipment.
- (t) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (u) Emergency gasoline generators not exceeding 110 horsepower.
- (v) Emergency diesel generators not exceeding 1600 horsepower.
- (w) grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting ; pneumatic conveying; and woodworking operations.
- (x) Filter or coalescer media change out.
- (y) Thin Film Line I Ink Printer used to mark bar and pipe with identification information.
- (z) Thin Film Line II Ink Printer used to mark pipe with identification information.
- (aa) Pyrolysis cleaning furnace, identified as EU25, used to remove coating from steel parts by heating and vaporizing.
- (bb) Thin Film Line II Rinse Station spraying a water/phosphoric acid mixture onto steel pipe.
- (cc) Thin Film Line I Blowout Station used to remove residual steel abrasive from the inside of steel pipe.
- (dd) Thin Film Line II Blowout Station used to remove residual steel abrasive from the inside of steel pipe.
- (ee) One (1) Thin Film Line II Abrasive Grit Blow Out Station identified as EU15, with particulate matter controlled by a baghouse identified as CE3, and exhausting at one (1) stack identified as S/V4;
- (ff) I.D. paint station applying a rust preventive coating onto pipe ends.
- (gg) Quality control lab located in the main office.

- (hh) Rebar fume hood exhausting fume at the exist side of the Rebar spray booth to the atmosphere.
- (ii) Thin Film Line fume hood exhausting fume at the exist side of the Thin Film Line spray booth to the atmosphere.
- (jj) Dowel bar dip tank coating steel bars with a corrosion preventive compound.

### **Existing Approvals**

- (a) FESOP 089-5526-00096, issued on December 10, 1996; and
- (b) First Administrative Amendment AF089-10710-00096, issued on April 18, 2000.

### **Enforcement Issue**

There are no enforcement actions pending.

### **Recommendation**

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP application for the purposes of this review was received on March 16, 2001.

There was no notice of completeness letter mailed to the source.

### **Emission Calculations**

See Appendix A of this document for detailed emissions calculations (pages 1 through 11).

## Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	2,294.65
PM-10	2,275.27
SO <sub>2</sub>	0.11
VOC	619.35
CO	14.13
NO <sub>x</sub>	16.94

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Unrestricted Potential Emissions (tons/yr)
Chromium Compounds	less than 10
Xylene	greater than 10
Ethylbenzene	greater than 10
MEK	less than 10
Glycol Ethers	less than 10
Toluene	less than 10
Manganese Compounds	greater than 10
Nickel Compounds	less than 10
TOTAL	greater than 25

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM-10 and VOC is equal to or greater than 100 tons per year and 25 tons per year, respectively. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Fugitive Emissions  
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

## Potential to Emit After Issuance

The source, issued a FESOP on December 10, 1996, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP. (F 089-5526-00096; issued on December 10, 1996).

Process/emission unit	Potential to Emit After Issuance (tons/year)							
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	Single HAP	Total HAPs
Thin Film Line I Abrasive Cleaning Machine (EU5) <sup>(1)</sup>	0.16	0.16	-	-	-	-	-	-
Thin Film Line II Abrasive Cleaning Machine (EU14) <sup>(1)</sup>	0.16	0.16	-	-	-	-	-	-
Rebar Line Abrasive Cleaning Machine (EU27) <sup>(1)</sup>	0.05	0.05	-	-	-	-	-	-
I.D. Line Abrasive Cleaning Machine(EU30) <sup>(1)</sup>	0.63	0.63	-	-	-	-	-	-
Thin Film Line I Powder Spray Booth (EU7) <sup>(1)</sup>	0.01	0.01	-	-	-	-	-	-
Thin Film Line II: One (1) Powder Spray Booth(EU19) <sup>(1)</sup>	0.09	0.09	-	-	-	-	-	-
Thin Film Line II: One (1) Powder Spray Booths (EU21) <sup>(1)</sup>	0.03	0.03	-	-	-	-	-	-
Custom I Line Powder Spray Booth (EU23) <sup>(1)</sup>	0.15	0.15	-	-	-	-	-	-
Thin Film Line II: Blow Out Station (EU15) <sup>(1)</sup>	0.01	0.01						
Rear Line Powder Spray Booth (EU28) <sup>(1)</sup>	0.01	0.01	-	-	-	-	-	-
Thin Film Line II: Three (3) natural gas direct fired process ovens, (EU16, EU17 and EU18)	0.32	1.28	0.10	0.93	14.13	16.82	negl.	negl.
I.D. Line Paint <sup>(2)</sup> Machine(EU31)	1.11	1.11	-	1.11	-	-	9.00	20.74
O.D. Paint Station (EU39) <sup>(2)</sup>	23.40	23.40	-	21.54	-	-	0.00	0.00
Rebar Patch (EU40) <sup>(2)</sup>	-	-	-	0.58			0.00	0.00
Clean up solvent <sup>(2)</sup>	-	-	-	0.25	-	-	3.23	3.23
30 gallon cold cleaning parts washer (EU41)	-	-	-	0.47	-	-	-	-
Ink Stamping	-	-	-	0.03	-	-	0.02	0.03
Plant Roads and Material Handling <sup>(3)</sup>	31.30	10.96	-	-	-	-	-	-
Pyrolysis Oven (EU25)	0.06	0.06	0.01	0.08	0.00	0.12	negl.	negl.
<b>Total PTE After Issuance</b>	<b>57.83</b>	<b>38.45</b>	<b>0.11</b>	<b>24.99</b>	<b>14.13</b>	<b>16.94</b>	<b>9.00</b>	<b>24.00</b>

(1) Based on controlled potential emissions.

(2) Based on material usage limitations.

(3) Based on uncontrolled PM and PM10 potential emissions.

### County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM-10	attainment*
SO <sub>2</sub>	primary non-attainment
NO <sub>2</sub>	attainment
Ozone	severe non-attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as non-attainment for ozone.

\*This source is located in Shererville, which is outside the moderate non-attainment area of Lake County for PM-10.

### Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) The parts washer is not subject to National Emissions Standard for Hazardous Air Pollutants (NESHAP), 40 CFR 63.460, Subpart T. The parts washer does not use halogenated solvent cleaners.

### State Rule Applicability - Entire Source

#### 326 IAC 1-6-3 (Preventive Maintenance Plan)

The source has submitted a Preventive Maintenance Plan (PMP) on March 16, 2001. This PMP has been verified to fulfill the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan).

#### 326 IAC 2-2 and 40 CFR 52.21(Prevention of Significant Deterioration, PSD) and 326 IAC 2-3 (Emission Offset)

This source was constructed in 1965, before the applicability date of August 7, 1980, and is not one of the 28 listed source categories. Since 1980 the source has installed the following emission units:

- (a) EU28 in 1981;
- (b) EU16, EU17 and EU19 in 1984;
- (c) EU30 and EU31 in 1985;
- (d) EU23 in 1986;
- (e) EU18 in 1988;
- (f) EU21 and EU39 in 1997; and
- (g) EU27 in 2000.

Based on the source's actual emission records, the source has always been a PSD minor with PM and PM-10 emissions remaining at less than 100 tons per year and VOC emissions remaining at less than 25 tons per year since the source was originally constructed. For this FESOP Renewal permit review, the source shall continue to limit PM emissions to less than 100 tons per year (tpy) based on material usage limitations on the surface coating facilities and controlled potential to emit from the grain loading operations, which limit PM to 57.83 tpy, when operating the equipments at 8,760 hours per year. PM-10 and VOC emissions shall be limited to less than 100 tpy and less than 25 tpy, respectively, as described under the FESOP section below. Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD) and 326 IAC 2-3 (Emission Offset) are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it is located in Lake County and has the potential to emit more than ten (10) tons per year of VOC and NOx. Pursuant to this rule, the owner/operator of the source must submit an emission statement for the source. The statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6 and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8).

326 IAC 2-8-4 (FESOP)

- (a) The three (3) paint booths (EU31, EU39 and EU40) shall use less than 23.49 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per twelve (12) consecutive month period. This usage limit is required to limit the source's potential to emit of VOC to less than 25 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-7 not applicable.
- (b) The three (3) paint booths (EU31, EU39 and EU40) shall use 9 tons and 23.97 tons of any single HAP and any combination of HAPs, respectively, including coatings, dilution solvents, and cleaning solvents, per 12 consecutive month period. These usage limits are required to limit the source's potential to emit of any single HAP and any combination of HAPs to less than 10 tons and less than 25 tons, respectively, per 12 consecutive month period. Compliance with these limits make 326 IAC 2-7 not applicable.
- (c) Pursuant to 326 IAC 2-8 (FESOP):
  - (1) the PM-10 emissions from baghouses CE-13 and CE-1 controlling EU5 and EU14, respectively, shall each not exceed 2.35 pounds per hour, which is equivalent to 10.31 tons per year.
  - (2) the PM-10 emissions from dust collector CE-7 controlling EU27, shall not exceed 0.73 pounds per hour, which is equivalent to 3.22 tons per year.
  - (3) the PM-10 emissions from baghouse CE-10 controlling EU30, shall not exceed 4.25 pounds per hour, which is equivalent to 18.6 tons per year.
  - (4) the PM-10 emissions from baghouse CE-11 controlling EU30 (reclaim), shall not exceed 4.25 pounds per hour, which is equivalent to 18.6 tons per year.
  - (5) the PM-10 emissions from dry filters CE-2 controlling EU7, shall not exceed 0.15 pounds per hour, which is equivalent to 0.64 tons per year.
  - (6) the PM-10 emissions from dry filters CE-4 controlling EU19, shall not exceed 1.32 pounds per hour, which is equivalent to 5.8 tons per year.
  - (7) the PM-10 emissions from dry filters CE-14 controlling EU21, shall not exceed

0.44 pounds per hour, which is equivalent to 1.93 tons per year.

- (8) the PM-10 emissions from dry filters CE-5 controlling EU23, shall not exceed 0.15 pounds per hour, which is equivalent to 0.64 tons per year.
- (9) the PM-10 emissions from baghouse CE-6 controlling EU23 (reclaim), shall not exceed 0.15 pounds per hour, which is equivalent to 0.64 tons per year.
- (10) the PM-10 emissions from dry filter CE-8 controlling EU28, shall not exceed 0.29 pounds per hour, which is equivalent to 1.28 tons per year.
- (11) the PM-10 emissions from dust collector CE-9 controlling EU28 (reclaim), shall not exceed 0.29 pounds per hour, which is equivalent to 1.28 tons per year.
- (12) the PM-10 emissions from baghouse CE-3 controlling EU15, shall not exceed 0.15 pounds per hour, which is equivalent to 0.64 tons per year.

Compliance with these requirements shall limit the source wide potential to emit PM-10 to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-3 do not apply.

#### 326 IAC 5-1 (Opacity Limitations)

Since this source is located in the affected area of Lake County it is subject to the requirements of 326 IAC 5-1-2(2). Pursuant to 326 IAC 5-1-2(2) (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### State Rule Applicability - Individual Facilities

##### 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of the metal pipe and bar abrasive cleaning and coating operation will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

##### 326 IAC 6-1-2 (Particulate Emissions Limitations)

The particulate matter emissions from EU5, EU14, EU27, EU30, EU7, EU19, EU37, EU23, EU28, EU21 and EU15 are subject to the requirements of 326 IAC 6-1-2 (Particulate Emissions Limitations) because this source is located in Lake County and has the potential to emit greater than 100 tons per year of particulate matter. Pursuant to 326 IAC 6-1-2(a), the particulate matter emissions from each of the facilities listed above shall be limited to 0.03 grains per dry standard cubic foot (gr/dscf). This is equivalent to a particulate allowable emission rate of the following:

Process/Facility	Exhaust Flow Rate (dscfm)	Allowable PM Emission Rate (lb/hr)
EU5 & EU14	6,623	1.70 each
EU27	6,817	1.75
EU30	5,649	1.45
EU30 (reclaim)	4,188	1.08
EU7	2,532	0.65
EU19	5,843	1.50
EU21	8,905	2.29
EU23	5,843	1.50
EU23 (reclaim)	4,188	1.08
EU28	1,677	0.43
EU28 (reclaim)	7,791	2.00
EU15	4,188	1.08
EU25	59	0.013
EU31	13,367	3.43
Insignificant Activities	-	0.5

Compliance with these limits shall make the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

**326 IAC 6-1-10.1 ( Lake County PM-10 Emissions Requirements)**

Pursuant to 326 IAC 6-1-10.1(a), the requirements of this rule do not apply to sources not specifically listed in 326 IAC 6-1-10.1(d). This source is not listed in 326 IAC 6-1-10.1(d), therefore, this rule does not apply.

**326 IAC 6-1-11.1 (Fugitive Particulate Matter Emission Limits in Lake County)**

This source is subject to the control requirements of 326 IAC 6-1-11.1 for each facility and operation having a potential to emit of 5 tons per year or more of fugitive PM. The O.D. Liquid Station (EU39) is a transportable material processing (surface coating) facility which does not exhaust through a designated vent. Coating materials are applied to steel pipe utilizing either a flow coat or airless methodology. PM emissions under the airless application method are considered as fugitive, and the emissions exceed the 5 ton per year rule applicability limit. Therefore, pursuant to 326 IAC 6-1-11.1(d)(7)(C) and (D) the O.D. Liquid Station shall be limited, respectively, to 10% opacity when operating outside of a building and to a zero percent frequency of visible emission observations when operating inside of a building enclosing all or part of the process.

**326 IAC 6-3-2 (Process Operations)**

Limitations established at 326 IAC 6-3 do not apply if limitations established at 326 IAC 6-1 or 326 IAC 12 apply. Since the requirements of 326 IAC 6-1 apply to this source, 326 IAC 6-3 is not applicable.

326 IAC 6-5 (Fugitive Particulate Matter Emissions Limitations)

Pursuant to 326 IAC 6-5(a), the requirements of this rule do not apply to a source of fugitive PM emission located in Lake County. Since this source is located in Lake County, this rule does not apply.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the I.D. Paint Machine (EU31), the O.D. Liquid Station (EU39) and the Rebar Patch Station (EU40) shall each be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the spray booths are in compliance with this requirement.

326 IAC 8-3-2 (Cold Cleaner Operations)

The parts washer (EU41) is a cold cleaner type degreasing facility installed in 1994 and subject to the operation and control provisions of 326 IAC 8-3-2.

Pursuant to 326 IAC 8-3-2, the owner or operator of the cold cleaner degreasing facility shall:

- (a) equip the cleaner with a cover;
- (b) equip the cleaner with a facility for draining cleaned parts;
- (c) close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) provide a permanent, conspicuous label summarizing the operation requirements;
- (f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The parts washer (EU41) is a cold cleaner type degreasing facility installed in 1994 and subject to the operation and control provisions of 326 IAC 8-3-5.

- (a) Pursuant to 326 IAC 8-3-5(a), the owner or operator of the cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
    - (B) the solvent is agitated; or
    - (C) the solvent is heated.

- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
    - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

**326 IAC 8-7 (Specific VOC reduction Requirements for Lake, Porter, Clark, and Floyd Counties)**

This source is not subject to the requirements of 326 IAC 8-7, since total potential VOC emissions from all affected facilities are below 25 tons per year and potential VOC emissions from affected coating facilities are below 10 tons per year.

**Testing Requirements**

All testing requirements from previous approvals were incorporated into this FESOP. Previous stack tests to comply with this requirement were conducted as follows:

- (a) PM and PM-10 testing was performed in November 2000.

During the period between July 2005 - December 2005, in order to demonstrate compliance with Conditions D.1.1 and D.1.2 the Permittee shall perform PM and PM-10 testing on the I.D. Line Abrasive Cleaning Machine equipped with airwash separator and grit reclaim, all identified as EU30, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C-Performance Testing.

## Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

All compliance requirements from previous approvals were incorporated into this FESOP, except the frequencies for visible emission notations and baghouse pressure drop readings have been changed to once per shift.

*Reason changed:* Compliance monitoring conditions are in the permit in order to ensure continuous compliance with the requirements. Baghouse failure can occur suddenly; therefore monitoring of baghouse operational parameters should be more frequent than weekly or even daily in such cases where a source operates more than one shift per day. The OAQ believes that changing visible emissions notations to once per operating shift is a reasonable requirement. Therefore, the requirements to perform visible emissions notations have been changed from weekly to once per shift. This change likewise applies to the pressure drop readings. The compliance monitoring requirements applicable to this source are as follows:

1. The Thin Film Line I Abrasive Cleaning Machine (EU5) and Thin Film Line II Abrasive

Cleaning Machine (EU14) are controlled by the same baghouse and they have identical applicable compliance monitoring conditions as specified below:

- (a) Once per shift visible emissions notations of the baghouse exhaust for EU5 and EU14 shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) The Permittee shall record the differential pressure across the baghouse controlling the abrasive cleaning machines (EU5 and EU14), at least once per shift when either abrasive cleaning machine (EU5 or EU14) is in operation. When for any one reading, the pressure drop across baghouses is outside the normal ranges of 1.0 to 6.0 inches of water, or ranges established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

These monitoring conditions are necessary because the baghouse for the abrasive cleaning processes must operate properly to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations), 326 IAC 6-1-2 (Particulate Emission Limitations), and 326 IAC 2-8 (FESOP).

- 2. The Rebar Line Abrasive Cleaning Machine (EU27) has applicable compliance monitoring conditions as specified below:
  - (a) Once per shift visible emissions notations of the dust collector exhaust for EU27 shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
  - (b) The Permittee shall record the differential pressure across the dust collector

controlling the abrasive cleaning machine (EU27), at least once per shift when the abrasive cleaning machine (EU27) is in operation. When for any one reading, the pressure drop across dust collector is outside the normal ranges of 1.0 to 6.0 inches of water, or ranges established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

These monitoring conditions are necessary because the dust collector for the abrasive cleaning process must operate properly to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations), 326 IAC 6-1-2 (Particulate Emission Limitations), and 326 IAC 2-8 (FESOP).

3. The I.D. Line Abrasive Cleaning Machine (EU30) equipped with a reclaim system has applicable compliance monitoring conditions as specified below:
  - (a) Once per shift visible emissions notations of the baghouse exhausts (S/V20 and S/V21) for EU30 shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
  - (b) The Permittee shall record the differential pressure across the baghouses (CE-10 and CE-11) controlling the abrasive cleaning machine and reclaim system (EU30), at least once per shift when the abrasive cleaning machine and reclaim system (EU30) are in operation. When for any one reading, the pressure drop across baghouses is outside the normal ranges of 1.0 to 6.0 inches of water, or ranges established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

These monitoring conditions are necessary because the baghouse for the abrasive cleaning and reclaim process must operate properly to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations), 326 IAC 6-1-2 (Particulate Emission Limitations), and 326 IAC 2-8 (FESOP).

4. The Dual Coating Powder Spray Booth equipped with powder reclaim has applicable

compliance monitoring conditions as specified below:

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack for Dual Coating Powder Spray Booth (EU21), S/V7, while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and general ventilation exhausts, and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the dry filters for the powder coating process must operate properly to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations), 326 IAC 6-1-2 (Particulate Emission Limitations), and 326 IAC 2-8 (FESOP).

5. The Thin Film Line I Powder Spray Booth equipped with powder reclaim (EU7) has applicable compliance monitoring conditions as specified below:

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack for Thin Film Line I Powder Spray Booth (EU7), S/V3, while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and general ventilation exhausts, and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the dry filters for the powder

coating process must operate properly to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations), 326 IAC 6-1-2 (Particulate Emission Limitations), and 326 IAC 2-8 (FESOP).

6. The Thin Film Line II Powder Spray Booth (EU19) has applicable compliance monitoring conditions as specified below:
  - (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack for Thin Film Line II Powder Spray Booth (EU19), S/V6, while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
  - (b) Monthly inspections shall be performed of the coating emissions from the stack and general ventilation exhausts, and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps shall be considered a violation of this permit.
  - (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the dry filters for the powder coating process must operate properly to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations), 326 IAC 6-1-2 (Particulate Emission Limitations), and 326 IAC 2-8 (FESOP).

7. The Custom I Line Powder Spray Booth (EU23) has applicable compliance monitoring conditions as specified below:
  - (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack for Custom I Line Powder Spray Booth (EU23), S/V12, while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
  - (b) Monthly inspections shall be performed of the coating emissions from the stack and general ventilation exhausts, and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps shall be considered a violation of this permit.
  - (c) Additional inspections and preventive measures shall be performed as

prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the dry filters for the powder coating process must operate properly to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations), 326 IAC 6-1-2 (Particulate Emission Limitations), and 326 IAC 2-8 (FESOP).

8. The Custom I Line Powder Reclaim (EU23) has applicable compliance monitoring conditions as specified below:
  - (a) Once per shift visible emissions notations of the baghouse exhausts (S/V13) for EU23 shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
  - (b) The Permittee shall record the differential pressure across the baghouse (CE-6) controlling the custom I line powder reclaim (EU23), at least once per shift when the custom I line powder reclaim (EU23) is in operation. When for any one reading, the pressure drop across baghouse is outside the normal ranges of 1.0 to 6.0 inches of water, or ranges established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

These monitoring conditions are necessary because the baghouse for the custom I line powder reclaim must operate properly to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations), 326 IAC 6-1-2 (Particulate Emission Limitations), and 326 IAC 2-8 (FESOP).

9. The Rebar Line Powder Spray Booth (EU28) has applicable compliance monitoring conditions as specified below:
  - (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack for rebar line powder spray booth (EU28), S/V18, while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

- (b) Monthly inspections shall be performed of the coating emissions from the stack and general ventilation exhausts, and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the dry filters for the powder coating process must operate properly to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations), 326 IAC 6-1-2 (Particulate Emission Limitations), and 326 IAC 2-8 (FESOP).

10. The Rebar Line Powder Reclaim (EU28) has applicable compliance monitoring conditions as specified below:

- (a) Once per shift visible emissions notations of the dust collector exhaust (S/V19) for EU28 shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) The Permittee shall record the differential pressure across the dust collector (CE-9) controlling the rebar line powder reclaim (EU28), at least once per shift when the rebar line powder reclaim (EU28) is in operation. When for any one reading, the pressure drop across dust collector is outside the normal ranges of 1.0 to 6.0 inches of water, or ranges established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

These monitoring conditions are necessary because the dust collector for the rebar line powder reclaim must operate properly to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations), 326 IAC 6-1-2 (Particulate Emission Limitations), and 326 IAC 2-8 (FESOP).

11. The three (3) liquid coating facilities, I.D. Line Paint Machine (EU31), O.D. Liquid Station (EU39) and Rebar Line Patch Station (EU40), have applicable compliance monitoring conditions as specified below:
- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack for I.D. Line Paint Machine (EU31), S/V22, while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
  - (b) Monthly inspections shall be performed of the coating emissions from the stacks and general ventilation exhausts, and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps shall be considered a violation of this permit.
  - (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the dry filters for the surface coating processes must operate properly to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations), 326 IAC 6-1-2 (Particulate Emission Limitations), and 326 IAC 2-8 (FESOP).

## **Conclusion**

The operation of this metal pipe and bar abrasive cleaning and coating operation shall be subject to the conditions of the attached proposed FESOP No.: F089-14137-00096.

## Appendix A: Emission Calculations

**Company Name:** Midwest Pipe Coating, Inc.  
**Address City IN Zip:** 925 Kennedy Ave. Schererville, IN 46375  
**FESOP:** F089-14137-00096  
**Reviewer:** AB/EVP  
**Date:** February 19, 2002

### Uncontrolled Potential Emissions (tons/year)

Emissions Generating Activity								
Pollutant	Combustion	Surface Coating	Abrasive Cleaning/Powder Coating	Pyrolysis Oven	Cold Cleaner/Degreaser	Ink Stamping	Material Handling & Plant Roads	TOTAL
PM	0.32	637.52	1,625.45	0.06	0.00	0.00	31.30	2,294.65
PM10	1.28	637.52	1,625.45	0.06	0.00	0.00	10.96	2,275.27
SO2	0.10	0.00	0.00	0.01	0.00	0.00	0.00	0.11
NOx	16.82	0.00	0.00	0.12	0.00	0.00	0.00	16.94
VOC	0.93	617.84	0.00	0.08	0.47	0.03	0.00	619.35
CO	14.13	0.00	0.00	0.00	0.00	0.00	0.00	14.13
total HAPs	0.00	129.96	0.00	0.00	0.00	0.03	0.00	129.99
worst case single HAP	0.00	86.18	0.00	0.00	0.00	0.03	0.00	86.18
		xylene						

Total emissions based on rated capacity at 8,760 hours/year.

### Controlled Potential Emissions (tons/year)

Emissions Generating Activity								
Pollutant	Combustion	Surface Coating	Abrasive Cleaning/ Coating	Pyrolysis Oven	Cold Cleaner/ Degreaser	Ink Stamping	Material Handling & Plant Roads	TOTAL
PM	0.32	24.52	1.63	0.06	0.00	0.00	31.30	57.83
PM10	1.28	24.52	1.63	0.06	0.00	0.00	10.96	38.45
SO2	0.10	0.00	0.00	0.01	0.00	0.00	0.00	0.11
NOx	16.82	0.00	0.00	0.12	0.00	0.00	0.00	16.94
VOC	0.93	23.48	0.00	0.08	0.47	0.03	0.00	< 25.00
CO	14.13	0.00	0.00	0.00	0.00	0.00	0.00	14.13
total HAPs	0.00	23.97	0.00	0.00	0.00	0.03	0.00	24.00
worst case single HAP	0.00	9.00	0.00	0.00	0.00	0.03	0.00	9.00
		xylene						

Total emissions based on rated capacity at 8,760 hours/year, after control.

Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations

Company Name: Midwest Pipe Coating, Inc.  
Address City IN Zip: 925 Kennedy Ave. Schererville, IN 46375  
FESOP Renewal: F089-14137-00096  
Reviewer: AB/EVP  
Date: February 19, 2002

Material		Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Sherwin-Williams Phenicon	EU31 (ID Line)	13.7	16.20%	0.00%	16.2%	0.00%	0.00%	0.00042	35,000	2.22	2.22	32.63	783.00	142.90	184.80		75%
Lilly Flowliner	EU31 (ID Line)	13.7	22.60%	0.00%	22.6%	0.00%	58.50%	0.00042	35,000	3.10	3.10	45.51	1092.34	199.35	170.68	5.29	75%
Ameron 395	EU31 (ID Line)	13.2	8.20%	0.00%	8.2%	0.00%	0.00%	0.00043	35,000	1.08	1.08	16.29	390.96	71.35	199.70		75%
Powercrete	EU39 (OD Station)	14.72	5.20%	0.00%	5.2%	0.00%	90.70%	0.00078	35,000	0.77	0.77	20.90	501.52	91.53	0.00	0.84	100%
Sherwin-Williams Yellow	EU39 (OD Station)	9.13	58.80%	50.20%	8.6%	0.00%	34.90%	0.00126	35,000	0.79	0.79	34.63	831.03	151.66	181.64	2.25	75%
Sherwin-Williams Red	EU39 (OD Station)	8.65	69.80%	53.70%	16.1%	0.00%	33.80%	0.0013	35,000	1.39	1.39	63.37	1520.77	277.54	130.15	4.12	75%
Speciality Polymer	EU39 (OD Station)	11.9	0.00%	0.00%	0.0%	0.00%	0.00%	0.00096	35,000	0.00	0.00	0.00	0.00	0.00	437.82		75%
Shervin-Williams Red Oxide	EU39 (OD Station)	13.88	18.10%	0.00%	18.1%	0.00%	0.00%	0.000831	35,000	2.51	2.51	73.07	1753.67	320.05	362.04		75%
Sherwin-Williams Coal Tar Epoxy	EU39 (OD Station)	9.8	23.20%	0.28%	22.9%	0.00%	0.00%	0.00117	35,000	2.25	2.25	92.00	2208.01	402.96	337.49		75%
3M SK413/215 PC	EU40 (Rebar Patch)	10.34	26.60%	0.0%	26.6%	0.0%	67.40%	0.00003	30000.00	2.75	2.75	2.48	59.41	10.84	0.00	4.08	100%
Clean-up Solvent		7.09	100.00%	0.0%	100.0%	0.0%	0.00%	1320.000	gal / year	7.09	7.09	1.07	25.64	4.68	0.00		75%

Uncontrolled Potential Emissions

Add worst case coating to all solvents

141.063385.40617.84637.52

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)  
Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)  
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)  
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)  
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)  
Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)  
Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)  
Total = Worst Coating + Sum of all solvents used  
Controlled emission rate = uncontrolled emission rate \* (1 - control efficiency)

Material usage at Process EU31 (I.D. Coating Booth) will be limited to 10.44% of potential material usage based on 8,760 hours per year operation in order to limit xylene as a single hazardous air pollutant (HAP) to 9 tons per year.  
Total material usage (i.e., VOC delivered to applicator) will be limited to 5.34% of total potential material usage based on 8,760 hours per year operation in order to limit VOC from surface coating to 23.48 tons per year.  
Also, such a material usage limit will have the incidental effect of reducing PM-10 emissions to less than the FESOP limit of 100 tpy.

Control Efficiency:		Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr
VOC	VOC (EU31)				
94.65%	89.56%	5.36	128.68	23.48	24.52

### Appendix A: Process Particulate Emissions

**Company Name:** Midwest Pipe Coating, Inc.  
**Address City IN Zip:** 925 Kennedy Ave. Schererville, IN 46375  
**FESOP:** F089-14137-00096  
**Reviewer:** AB/EVP  
**Date:** February 18, 2002

State Potential Emissions (tons/year)								
A. Baghouses								
Control Unit ID	Facility Controlled by Control Device	No. of Units	Grain Loading per Actual Cubic Foot of Outlet Air	Air to Cloth Ratio Air Flow (acfm/ft²)	Total Filter Area (ft²)	Control Efficiency	Total PTE (TONS/YR)	
CE1	TF I Cleaning Machine (EU5)	1	0.00042	10,000	1	99.90%	157.68	
CE1	TF II Cleaning Machine (EU14)	1	0.00042	10,000	1	99.90%	157.68	
CE2	TF I Coating Booth (EU7)	1	0.00014	2,600	1	99.90%	13.67	
CE3	TF II Blow Out Station (EU15)	1	0.00008	4,300	1	99.90%	12.91	
CE4	TF II Coating Booth (EU19)	1	0.00042	6,000	1	99.90%	94.61	
CE5	Custom I Coating Booth (EU23)	1	0.0006	6,000	1	99.90%	135.15	
CE6	Custom I Coating Booth Reclaim (EU23)	1	0.00006	4,300	1	99.90%	9.69	
CE7	Rebar Cleaning Machine (EU27)	1	0.00015	9,000	1	99.90%	50.68	
CE8	Rebar Coating Booth (EU28)	1	0.00013	1,722	1	99.90%	8.40	
CE9	Rebar Coating Booth Reclaim (EU28)	1	0.00006	2,000	1	99.90%	4.51	
CE10	I.D. Cleaning Machine (EU30)	1	0.00117	14,400	1	99.90%	632.52	
CE11	I.D. Cleaning Machine Reclaim (EU30)	1	0.00196	4,300	1	99.90%	316.41	
CE14	Custom II Coating Booth (EU21)	1	0.00007	12,000	1	99.90%	31.54	
Total Emissions Based on Rated Capacity at 8,760 Hours/Year							<b>1625.45</b>	
Federal Potential Emissions (tons/year)								
A. Baghouses								
Control Unit ID	Facility Controlled by Control Device	No. of Units	Grain Loading per Actual Cubic Foot of Outlet Air	Air to Cloth Ratio Air Flow (acfm/ft²)	Total Filter Area (ft²)	Control Efficiency	Total (tons/yr)	326 IAC 6-1-2 PM Allowable lb/hr
CE1	TF I Cleaning Machine (EU5)	1	0.00042	10,000	1	99.90%	0.16	1.70
CE1	TF II Cleaning Machine (EU14)	1	0.00042	10,000	1	99.90%	0.16	0.00
CE2	TF I Coating Booth (EU7)	1	0.00014	2,600	1	99.90%	0.01	0.65
CE3	TF II Blow Out Station (EU15)	1	0.00008	4,300	1	99.90%	0.01	1.08
CE4	TF II Coating Booth (EU19)	1	0.00042	6,000	1	99.90%	0.09	1.50
CE5	Custom I Coating Booth (EU23)	1	0.0006	6,000	1	99.90%	0.14	1.50
CE6	Custom I Coating Booth Reclaim (EU23)	1	0.00006	4,300	1	99.90%	0.01	1.08
CE7	Rebar Cleaning Machine (EU27)	1	0.00015	9,000	1	99.90%	0.05	1.75
CE8	Rebar Coating Booth (EU28)	1	0.00013	1,722	1	99.90%	0.01	0.43
CE9	Rebar Coating Booth Reclaim (EU28)	1	0.00006	2,000	1	99.90%	0.00	2.00
CE10	I.D. Cleaning Machine (EU30)	1	0.00117	14,400	1	99.90%	0.63	1.45
CE11	I.D. Cleaning Machine Reclaim (EU30)	1	0.00196	4,300	1	99.90%	0.32	1.08
CE14	Custom II Coating Booth (EU21)	1	0.00007	12,000	1	99.90%	0.03	2.29
Total Emissions Based on Rated Capacity at 8,760 Hours/Year and source controls							<b>1.63</b>	

#### Methodology:

##### State Potential (uncontrolled):

Baghouse (tons/yr) = No. Units \* Loading (grains/acf) \* Air/Cloth Ratio (acfm/ft²) \* Filter Area (ft²) \* 1 lb/7,000 grains \* 60 min/hr \* 8760 hr/yr \* 1/(1-Control Efficiency)

##### Federal Potential (controlled):

Baghouse (tons/yr) = No. Units \* Loading (grains/acf) \* Air/Cloth Ratio (acfm/ft²) \* Filter Area (ft²) \* 1 lb/7,000 grains \* 60 min/hr \* 8760 hr/yr \* 1/(1-Control Efficiency)

**Appendix A: Emission Calculations**  
**HAP Emission Calculations**

Page 4 of 11 TSD AppA

**Company Name:** Midwest Pipe Coating, Inc.  
**Address City IN Zip:** 925 Kennedy Ave. Schererville, IN 46375  
**FESOP:** F089-14137-00096  
**Reviewer:** AB/EVP  
**Date:** February 18, 2002

Material		Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Chromium Compounds	Weight % Xylene	Weight % Ethylbenzene	Weight % MEK	Weight % Glycol Ethers	Weight % Toluene	Weight % Manganese Compounds	Weight % Nickel Compounds	HAP EMISSION RATES (TONS PER YEAR)								Total
													Chromium Compounds (ton/yr)	Xylene (ton/yr)	Ethylbenzene (ton/yr)	MEK (ton/yr)	Glycol Ethers (ton/yr)	Toluene (ton/yr)	Manganese Compounds (ton/yr)	Nickel Compounds (ton/yr)	
Sherwin-Williams Phenicon	EU31 (ID Line)	13.7	0.00042	35,000	0.00%	9.63%	1.75%	0.88%	0.00%	0.00%	0.00%	0.00%	0.00	84.95	15.44	7.76	0.00	0.00	0.00	0.00	
Lilly Flowliner	EU31 (ID Line)	13.7	0.00042	35,000	0.00%	9.77%	2.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	86.18	17.82	0.00	0.00	0.00	0.00	0.00	
Ameron 395	EU31 (ID Line)	13.2	0.00043	35,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Powercrete	EU39 (OD Station)	14.72	0.00078	35,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sherwin-Williams Yellow	EU39 (OD Station)	9.13	0.00126	35,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sherwin-Williams Red	EU39 (OD Station)	8.65	0.0013	35,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speciality Polymer	EU39 (OD Station)	11.9	0.00096	35,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sherwin-Williams Red Oxide	EU39 (OD Station)	13.88	0.00083	35,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sherwin-Williams Coal Tar Epoxy	EU39 (OD Station)	9.8	0.00117	35,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3M SK413/215 PC	EU40 (Rebar Patch)	10.34	0.00003	30000.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Clean-up Solvent		7.09	1320.000	gal / year	0.00%	0.00%	0.00%	0.00%	0.00%	69.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	3.23	0.00	0.00	
Black Offset Ink		see Appendix A, Page 6 of 11			0.00%	0.00%	0.00%	0.00%	58.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	
Offset Ink Thinner		see Appendix A, Page 6 of 11			0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	
Abrasive Cleaning Machines and TFII Blow Out			853.8	tons PM / yr		0.25%	0.00%	0.00%	0.00%	0.00%	0.00%	1.30%	0.20%	2.13	0.00	0.00	0.00	0.00	0.00	11.10	1.71
Total State Potential Emissions													2.13	86.18	17.82	7.76	0.03	3.23	11.10	1.71	129.96
Total Federal Potential Emissions													0.00	9.00	1.86	0.81	0.03	3.23	0.01	0.00	14.94

**METHODOLOGY**

HAPS emission rate (tons/yr) = Density (lb/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8760 hrs/yr \* 1 ton/2000 lbs

Total federal potential emissions for emission unit EU31 (I.D. Coating Booth) reflect material usage limited to 10.44% of potential usage based on 8,760 hours per year of operation in order to limit xylene emissions to 9 tons per year

Total state potential emissions for abrasive cleaning machines and TFII blow out are based on PM calculations contained in Appendix A, Page 5 of 11. Total federal potential emissions for abrasive cleaning machines reflect fabric filter efficiency of 99.9%.

## Appendix A: Emissions Calculations

### Natural Gas Combustion Only

MM BTU/HR <100

Company Name: Midwest Pipe Coating, Inc.

Address City IN Zip: 925 Kennedy Ave. Schererville, IN 46375

FESOP: F089-14137-00096

Reviewer: AB/EVP

Date: February 19, 2002

Heat Input Capacity MMBtu/hr	Unit ID	Potential Throughput MMCF/yr
---------------------------------	---------	---------------------------------

38.4

336.4

12.8 EU16

12.8 EU17

12.8 EU18

### Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.90	7.60	0.60	100.00	5.50	84.00
				**see below		
Potential Emission in tons/yr	0.32	1.28	0.10	16.82	0.93	14.13

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

**Appendix A: ID Ink Stamping (Page 6 of 11)**

**Company Name:** Midwest Pipe Coating, Inc.  
**Address City IN Zip:** 925 Kennedy Ave. Schererville, IN 46375  
**FESOP:** F089-14137-00096  
**Reviewer:** AB/EVP  
**Date:** February 18, 2002

Total potential ink usage at TFI, TFII and Extracoat production lines:

6 quarts per quarter

MSDS lists VOC content as 567 g/l

Potential VOC emissions:

$6 \text{ qts} / 3 \text{ mos} * 12 \text{ mos} / \text{yr} * 1 \text{ gal} / 4 \text{ qts} * 567 \text{ g} / \text{l} * 1 \text{ kg} / 1000 \text{ g} * 8.345 \text{ (lb/gal)} / (\text{kg/l}) = 28.4 \text{ lb VOC} / \text{yr}$

Potential HAP emissions:

MSDS lists glycol ethers as 58% (weight) of ink. It is assumed that this is 100% of ink VOC content. Therefore,

HAPS = 28.4 lb / yr

To maintain the properties of the ink during the winter months, a small amount of thinner may be added. Potential thinner estimated at 3 gallons per year.

MSDS lists VOC content as 948 g/l

Potential VOC emissions:

$3 \text{ yr} * 948 \text{ g} / \text{l} * 1 \text{ kg} / 1000 \text{ g} * 8.345 \text{ (lb/gal)} / (\text{kg/l}) = 23.7 \text{ lb VOC} / \text{yr}$

Potential HAP emissions:

MSDS lists glycol ethers as 100% (weight) of thinner. Therefore, HAPS = 23.7 lb VOC / yr

Total potential VOC and HAP emissions from pipe ID ink stamping:

$28.4 \text{ lb} / \text{yr} + 23.7 \text{ lb} / \text{yr} = 52.1 \text{ lb VOC} / \text{yr} \text{ (0.03 ton per year)}$

~~This facility is not subject to the provisions of 326 IAC 8-2-9 as the actual emissions are less than 15 lb / day.~~

**Appendix A: Emission Calculations**  
**Pyrolysis Cleaning Oven with Afterburner**

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**Company Name:** Midwest Pipe Coating, Inc.  
**Address City IN Zip:** 925 Kennedy Ave. Schererville, IN 46375  
**FESOP:** F089-14137-00096  
**Reviewer:** AB/EVP  
**Date:** February 19, 2002

<b>MATERIAL THROUGH PUT</b> lbs/hr 10
---

**TONS/YR**  
 ton/yr  
 43.8

Emission Factor in lb pollutant/lb material	POLLUTANT				
	PM 0.00133	SO2 0.00018	CO 0.00000	VOC 0.00174	NOX 0.00271
Potential Emissions in ton/yr	0.06	0.01	0.00	0.08	0.12

**Methodology**

Emission factors are from manufacturer.

Throughput (lb/hr) \* 8760 hr/yr \* ton/2000 lb = throughput (ton/yr)

State and Federal Potential to Emit is the same for this process unit as the afterburner is integral to the facility and cannot be operated separate from the pyrolysis furnace.

The facility is subject to a PM emission limit of 0.03 grains per dscf, as defined at 326 IAC 6-1-2. The facility complies with this limit as follows:  
 exhaust flow at standard conditions is 59 cfm; potential PM emission rate is 0.05825 tpy (0.0133 lb / hr)  
 $(\text{gr} / \text{scf}) = (0.0133 \text{ lb} / \text{hr}) * (7000 \text{ gr} / \text{lb}) * (\text{hr} / 60 \text{ min}) * (\text{min} / 59 \text{ scf}) = 0.026 \text{ gr} / \text{scf}$

**Appendix A: Emission Calculations**  
**Material Conveying/Handling**

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**Company Name: Midwest Pipe Coating, Inc.**  
**Address City IN Zip: 925 Kennedy Ave. Schererville, IN 46375**  
**FESOP: F089-14137-00096**  
**Reviewer: AB/EVP**  
**Date: March 15, 2002**

**\*\* conveying / handling (ID004)\*\***

The following calculations determine the amount of emissions created by material handling, based on 8.760 and AP-42, Section 13.2.4, Equation 1. The emission factor for calculating PM emissions is calculated as follow

PM-10 Emissions:

$$E = k * (0.0032) * (((U/5)^{1.3}) / ((M/2)^{1.4}))$$
$$= 1.12E-03 \text{ lb PM-10/ton}$$
$$2.37E-03 \text{ lb PM/ton}$$

where k = 0.35 (particle size multiplier for <10um)  
0.74 (particle size multiplier for <30um)  
U = 12 mph mean wind speed  
M = 4.5 material moisture content (%)

$$\frac{60 \text{ ton/hr} * 8,760 \text{ hrs/yr} * E_f (\text{lb/ton of material})}{2,000 \text{ lb/ton}} = (\text{ton/yr})$$

**Total PM 10 Emissions: 0.30 tons/yr**

**Total PM Emissions: 0.62 tons/yr**

**\*\* storage (Fugitive ID 003)\*\***

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

$$E_f = 1.7 * (s/1.5) * (365-p) / 235 * (f/15)$$
$$= 5.56 \text{ lb/acre/day}$$

where s = 4.8 % silt  
p = 125 days of rain greater than or equal to 0.01 inches  
f = 15 % of wind greater than or equal to 12 mph

$$E_p (\text{storage}) = \frac{E_f * sc * (20 \text{ cuft/ton}) * (365 \text{ day/yr})}{(2.000 \text{ lb/ton}) * (43,560 \text{ sqft/acre}) * (12 \text{ ft})}$$

where sc = 400 tons storage capacity

$$PM = 0.02 \text{ tons/yr} \quad P_{M-10}: 35\% \text{ of } PM = 0.01 \text{ tons/yr}$$

**Appendix A: Emission Calculations  
Material Conveying/Handling**

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**Company Name:** Midwest Pipe Coating, Inc.  
**Address City IN Zip:** 925 Kennedy Ave. Schererville, IN 46375  
**FESOP:** F089-14137-00096  
**Reviewer:** AB/EVP  
**Date:** March 16, 2001

**\*\* forklift truck 1 \*\***

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

$$\begin{aligned}
 & 4 \text{ trip/hr} \times \\
 & 0.05 \text{ mile/trip} \times \\
 & 2 \text{ (round trip) } \times \\
 & 8760 \text{ hr/yr} = 3504 \text{ miles per year}
 \end{aligned}$$

$$\begin{aligned}
 E_f &= k \cdot 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\
 &= 1.09 \text{ lb/mile} \\
 \text{where } k &= 0.8 \text{ size multiplier) } \\
 s &= 6 \text{ \% silt content of unpaved roads } \\
 p &= 125 \text{ days of rain greater than or equal to 0.01 inches } \\
 S &= 5 \text{ miles/hr vehicle speed } \\
 W &= 18 \text{ tons average vehicle weight } \\
 w &= 6 \text{ wheels }
 \end{aligned}$$

$$\frac{1.09 \text{ lb/mi} \times 3504 \text{ mi/yr}}{2000 \text{ lb/ton}} = 1.91 \text{ tons/yr}$$

$$\text{P M-10: } 35\% \text{ of PM} = 0.67 \text{ ton/yr}$$

**\*\* forklift truck 2 \*\***

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

$$\begin{aligned}
 & 6 \text{ trip/hr} \times \\
 & 0.25 \text{ mile/trip} \times \\
 & 2 \text{ (round trip) } \times \\
 & 8760 \text{ hr/yr} = 26280 \text{ miles per year}
 \end{aligned}$$

$$E_f = k \cdot 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365)$$

$$= 1.49 \text{ lb/mile}$$

where k = 0.8 size multiplier)

s = 6 % silt content of unpaved roads

p = 125 days of rain greater than or equal to 0.01 inches

S = 5 miles/hr vehicle speed

W = 27 tons average vehicle weight

w = 6 wheels

$$\frac{1.49 \text{ lb/mi} \times 26280 \text{ mi/yr}}{2000 \text{ lb/ton}} = 19.60 \text{ tons/yr}$$

$$\text{P M-10: } 35\% \text{ of PM} = 6.86 \text{ ton/yr}$$

**Appendix A: Emission Calculations  
Material Conveying/Handling**

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**Company Name:** Midwest Pipe Coating, Inc.  
**Address City IN Zip:** 925 Kennedy Ave. Schererville, IN 46375  
**FESOP:** F089-14137-00096  
**Reviewer:** AB/EVP  
**Date:** March 16, 2001

\* \* shuttle tractor with trailer \* \*

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

$$\begin{aligned}
 & 4 \text{ trip/hr} \times \\
 & 0.2 \text{ mile/trip} \times \\
 & 2 \text{ (round trip) } \times \\
 & 8760 \text{ hr/yr} = 14016 \text{ miles per year}
 \end{aligned}$$

$$\begin{aligned}
 E_f &= k \cdot 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\
 &= 1.40 \text{ lb/mile} \\
 \text{where } k &= 0.8 \text{ size multiplier) } \\
 s &= 6 \text{ \% silt content of unpaved roads} \\
 p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\
 S &= 5 \text{ miles/hr vehicle speed} \\
 W &= 25 \text{ tons average vehicle weight} \\
 w &= 6 \text{ wheels}
 \end{aligned}$$

$$\frac{1.40 \text{ lb/mi} \times 14016 \text{ mi/yr}}{2000 \text{ lb/ton}} = 9.79 \text{ tons/yr}$$

$$\text{P M-10: } 35\% \text{ of PM} = 3.43 \text{ ton/yr}$$

\* \* summary of source emissions before controls \* \*

Criteria Pollutants:

**P M:** 31.30 ton/yr  
**P M-10:** 10.96 ton/yr



**Appendix A: Emissions Calculations**  
**VOC**  
**From Parts Washer Operation**

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**Company Name: Midwest Pipe Coating, Inc.**  
**Address City IN Zip: 925 Kennedy Ave. Schererville, IN 46375**  
**FESOP: F089-14137-00096**  
**Reviewer: AB/EVP**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Transfer Efficiency
<b>EU41</b>												
CC100 parts washer	6.5	100.00%	0.0%	100.0%	0.0%	0.01655	6.54	6.54	0.11	2.60	0.47	0%

**State Potential Emissions**

**0.11**

**2.60**

**0.47**

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal per hour (gal/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal per hour (gal/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal per hour (gal/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Gallon per hour assumes consumption of 145 gallons per year of degreaser solvent. The degreaser facility actually averages 90 gallons per year.